

Appl. No. 10/699,051
Amdt. dated May 26, 2006
Reply to Office Action of March 3, 2006

REMARKS

Applicants have carefully reviewed the Office Action mailed on March 3, 2006. Applicants respectfully traverse all objections, rejections, and assertions made by the Examiner. With this amendment, claims 1 and 7 are amended. No new matter is added. Claims 1-12 and 21-22 remain pending.

Claims 1-12 and 21-22 are rejected under 35 U.S.C. §102(b) as being anticipated by Rasmussen in EP 0720838. Regarding claims 1-6, claim 1 recites the step of winding a coil over the polymer jacket, wherein the coil is wound under tension. Rasmussen does not teach or disclose that wirecoil 8 is wound under tension. Instead, Rasmussen only discloses that wirecoil 8 is mounted on the outside of the core and fixed to the core at its proximal end (column 8, lines 17-24 et seq.). Moreover, claim 1 recites the step of heating the jacket so that the coil tension is relieved. Because Rasmussen does not teach that wirecoil 8 is wound under tension, Rasmussen analogously cannot teach or disclose heating a jacket so that the coil tension is relieved. Based on these distinctions, Applicants respectfully submit that claim 1 is patentable over Rasmussen.

In addition, claim 1 also recites (as part of the heating step) that the outer surface of the jacket wicks between adjacent windings of the coil. While Rasmussen does disclose that bonding layer 25 can "wet the wire material" (column 8, lines 47-53), the result is not the wicking of the bonding layer between adjacent winding of the wirecoil 8. Instead, Rasmussen discloses that "capillary forces between the internal side of the turns [of the wirecoil 8] and the bonding layer cause the material to position itself some way up along the sides of the turns" (column 8, lines 47-53). "[T]he resulting surface between the turns [of the wirecoil 8] has a U-shaped course, which promotes the easy threading in and out of the embolization coil." (Column 8, lines 53-56.) Therefore, instead of teaching that the bonding layer 25 wicks between adjacent

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winding of the wirecoil 8, Ramussen explicitly teaches the opposite in order for the device to be more easily threaded in and out of the vasculature. Based on these remarks, Applicants respectfully submit that claim 1 is in condition for allowance. Because claims 2-6 depend from claim 1, they are also allowable based on this amendment and because they add significant elements to distinguish them further from the art.

Regarding claims 7-12, claim 7 is amended to recite embedding the coil within the jacket so that the outer surface of the jacket wicks between adjacent windings of the coil. For the reasons set forth above, this amendment distinguishes claim 7 from Rasmussen. Accordingly, Applicants respectfully submit that amended claim 7 is in condition for allowance. Because claims 8-12 depend from claim 7, they are also allowable based on this amendment and because they add significant elements to distinguish them further from the art.

Regarding claims 21 and 22, each of these claims similarly discloses the step of disposing a coil under tension about the jacket (over the distal region). In addition, each of these claims recites heating the thermoplastic jacket so that tension of coil is relieved. For the same reasons set forth above, Applicants respectfully submit that these limitations distinguish claims 21 and 22 from Rasmussen. Moreover, both claims 21 and 22 recite that the coil includes a fluorocarbon material. Rasmussen only discloses that the wirecoil 8 is stainless steel (column 8, lines 27-30). Therefore, Applicants respectfully submit that claims 21 and 22 are patentable over Rasmussen.

Claims 1-12 and 21-22 are rejected under 35 U.S.C. §102(b) as being anticipated by Burnham in U.S. Patent No. 4,764,324. Regarding claims 1-6, claim 1 is amended to recite that the heating step provides an outer surface of the jacket relative to the coil in the final medical device that has desirable flexibility characteristics. These desirable flexibility characteristics, for example, may be derived from the fact that rather than completely submerging the coil within the

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jacket, the jacket wicks between windings of the coil (see, for example, page 2, lines 16-23 of Applicants' specification). Because of this, the coil may be embedded in the jacket rather than be directly bonded with or completely submerged in the jacket (see, for example, page 4, lines 7-23). Burnham does not teach that the protruding portions 46 are present in the final catheter, let alone that they contribute anything to the flexibility characteristics in the final catheter. In fact, Burnham discloses that the only purpose for defining protruding portions 46 is so that they "may be smoothed over in a sizing and/or smoothing step 44 to form a smooth catheter wall completely enveloping and embedding the reinforcement material 38 as seen in FIGS. 6E and 6F" and that this smoothing "avoid[s] the application of a second extrusion". (Column 8, lines 61-68.) Thus, not only are the protruding portions 46 absent in the final Burnham catheter, the protruding portions 46 completely envelop the reinforcing material 36, which may undesirably impact (or have no effect on) the flexibility characteristics in the final Burnham catheter rather than desirably impact the flexibility characteristics as recited in claim 1. Accordingly, Applicants respectfully submit that amended claim 1 is in condition for allowance. Because claims 2-6 depend from claim 1, they are also allowable based on this amendment and because they add significant elements to distinguish them further from the art.

Regarding claims 7-12, claim 7 is similarly amended to recite that the embedding step provides an outer surface of the jacket relative to the coil in the final guidewire that has desirable flexibility characteristics. For the same reasons set forth above, Applicants respectfully submit that this amendment distinguishes claim 7 from Burnham and places it in condition for allowance. Because claims 8-12 depend from claim 7, they are also allowable based on this amendment and because they add significant elements to distinguish them further from the art.

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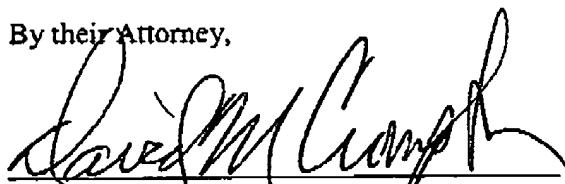
Regarding claims 21 and 22, each of these claims recites that the coil includes a fluorocarbon material. Burnham only discloses that reinforcement material 38 can be made from polyaramid, carbon boron fiber, glass, ceramic, non-metallic wires, metallic wires, natural fibers such as cotton, and monofilaments such as nylon and polyester (column 9, lines 45-52). Therefore, Applicants respectfully submit that claims 21 and 22 are patentable over Burnham.

Reexamination and reconsideration are requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is also respectfully requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

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By their Attorney,



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